

# **Markit iBoxx USD Emerging Markets Sovereigns Index**

**October 2014**

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### Changes to the iBoxx USD Emerging Markets Sovereigns Index

<b>01 Oct 2014</b>	Index restatement, complaints sections added, Additional clarifications on bond eligibility, classification and corporate actions
<b>31 Mar 2013</b>	Markit iBoxx USD Emerging Markets Sovereigns Index will be based on additional prices sources as described in the document 'Markit iBoxx Pricing Rules'
<b>30 Nov 2012</b>	Change of emerging markets definition to Markit Global Economic Development Classification Methodology
<b>31 Oct 2010</b>	Launch of iBoxx USD Emerging Markets Sovereigns Index

## 1 Markit iBoxx USD Emerging Markets Sovereigns Index

The Markit iBoxx USD Emerging Markets Sovereigns Index is designed to reflect the performance of USD denominated sovereign bonds issued by entities domiciled in the emerging markets. The index rules aim to offer a broad coverage of the emerging market sovereign bond universe, whilst upholding minimum standards of investability and liquidity. As of January 2013, the index tracks more than USD 450 bn worth of debt covering 54 individual countries/territories in Africa, Asia, Europe, Latin America and the Middle East. The indices are an integral part of the global Markit iBoxx index families, which provide the marketplace with accurate and objective indices by which to assess the performance of bond markets and investments

All iBoxx indices are priced based on multiple data inputs. The Markit iBoxx USD Emerging Markets Sovereigns Index uses multi-source prices as described in the document “Markit iBoxx Pricing Rules” publically available on [www.markit.com/indices](http://www.markit.com/indices). Additionally, the index rules and their application will be governed by two Index Advisory Committees:

- **Technical Committee:** consists of representatives from market makers / banks and meets on a monthly basis in order to provide feedback and information into the monthly rebalancing process and to monitor any market developments.
- **Oversight Committee:** consists of representatives from mostly the buy side and meets in order to discuss the decisions of the Technical Committee, the wider index rules and any market developments which may warrant rule changes.

This document covers the index rules and calculation methodology.

### 1.1 Index Governance

In order to ensure the independence and the objectivity of the Markit iBoxx USD Emerging Market Sovereigns Index, Markit will seek the advice from two distinct Index Advisory Committees. This is in line with the index advisory structure for the main Markit iBoxx index families.

#### 1.1.1 Technical Committee

The Technical Committee consists of representatives of market makers/banks. The main purpose of this group is to provide assistance in the identification of eligible constituents, especially in the instance where the eligibility or the classification of a bond is unclear or contentious. Additionally, the Technical Committee discusses any market developments which may warrant index rule changes, and provide recommendations on changes to the rules or additional indices. It also reviews the impact of financial sanctions on the eligibility of countries or specific index constituents. The Technical Committee meets once a month.

#### 1.1.2 Oversight Committee

The Oversight Committee consists of representatives from a broad range of asset managers, consultants and industry bodies. The purpose of this committee is to review the recommendations made by the Technical Committee and also to provide consultation on any market developments which may warrant rule changes.

### 1.2 Publication of the Markit iBoxx USD Emerging Market Sovereigns Index

The index is calculated at the end of each business day and re-balanced at the end of each month. The indices are calculated on the basis of end-of-day iBoxx prices on each trading day defined in the iBoxx USD Index calculation calendar. The index calculation calendar is available in the indices section on [www.markit.com/indices](http://www.markit.com/indices) under *Calendar* for data subscribers. Index data and bond price information is also available from the main information vendors.

Bond and index analytical values are calculated each trading day using the daily closing prices. Closing index values and key statistics are published at the end of each business day in the indices section on [www.markit.com/indices](http://www.markit.com/indices) for registered users. In addition, midday fixing levels for bond prices and indices are also published.

## 2 Bond Selection Rules

The eligible universe is derived from emerging market central government debt denominated in US dollars.

The following selection criteria are used to determine the index constituents:

- Bond type
- Issuer type
- Issuer domicile
- Amount outstanding and Denomination
- Time to maturity
- Age
- Credit Rating
- International Tradability

### 2.1 Bond Type

In particular, the following bond types are eligible:

- Plain vanilla fixed coupon bonds
- Zero coupon and multi coupon bonds with fixed coupon schedules
- Sinking fund and capitalizing bonds with a fixed sinking/capitalizing schedule

The following bond types are excluded from the indices:

- Callable bonds
- Puttable bonds

For retail bonds and private placements, publicly available information is not always conclusive and the classification of a bond as a retail bond or a private placement will be made at Markit's discretion based on the information available at the time of determination. Markit may consult with the specific Index Advisory Committees to review potential retail bonds or private placements. Any bond classified as retail or private placement is added to the list of excluded private placements and retail bonds. The list is published on [www.markit.com/indices](http://www.markit.com/indices) under *Indices News* for future reference and to ensure decision's consistency.

In instances where a new bond type is not specifically excluded or included according to the published index rules, Markit will analyse the features of such securities in line with the principles set out in 2.1 of this guide. Markit may consult the specific Index Advisory Committees. Any decision as to the eligibility or ineligibility of a new bond type will be published and the index rules will be updated accordingly.

The inclusion rules are reviewed regularly (once a year) and may be changed to capture new market trends if previously excluded bond types start to account for a significant share of a country's or region's bond issuance.

### 2.2 Issuer Type

Only sovereign debt issued by the central government or the central bank is eligible for the indices. Restructured debt is eligible for the indices, but Brady bonds are not.

### 2.3 Issuer Domicile

Only debt from the emerging markets as defined in chapter 2.9 is considered.

### 2.4 Amount Outstanding and Denomination

The bonds need to be denominated in US dollar and need to have a minimum amount outstanding of USD 500 m.

### 2.5 Time to Maturity

At inclusion in the index, bonds need to comply with a minimum time to maturity rule. The minimum time to maturity is 1 year, in line with other iBoxx bond indices. The minimum life at issuance measured from the first settlement date to the maturity date of the bond must be 18 months or more.

### 2.6 Age

There is no age restriction.

### 2.7 Credit Rating

The minimum average rating for bonds to be considered eligible is CCC.

## 2.8 International Tradability

Bonds should be internationally tradable. ISINs are used as a proxy to determine the tradability. Only ISINs originating from Japan, the US or Western Europe are eligible for the indices. The initial list only contains bonds with American ISINs (starting with “US”), German ISINs (starting with “DE” in the EUR index) or international ISINs (Luxembourg – starting with “XS”), ISINs from other Western European countries are also eligible but currently not in issue.

## 2.9 Emerging Market Definition

### 2.9.1 Issuer domicile

Only issuers from countries/territories classified as emerging markets are eligible for the indices. The list of emerging markets is established according to Markit Global Economic Development Classification Methodology and is used to determine the eligibility of the issuer. The classification methodology as well as the up-to-date classifications are published in the indices section on [www.markit.com/indices](http://www.markit.com/indices) under Markit Bond Indices / Markit iBoxx / Markit iBoxx Rules. The classifications are updated annually and implemented on 30 November each year.

### 2.9.2 Defaulted countries and sovereign debt rating

Countries that are in default on their external debt or that do not have a long term foreign debt rating from at least Fitch, Moody's or S&P are excluded from the indices. Countries with ratings of D or RD from Fitch, C or Ca from Moody's and D or SD from S&P are not eligible. A default is determined based on information from the rating agencies.

In addition, a country is considered to be in default if one of the 6 credit events as defined by ISDA occurs:

- Bankruptcy
- Obligation Acceleration
- Obligation Default
- Failure to Pay
- Repudiation/Moratorium
- Restructuring

### 2.9.3 Additional restriction for countries on financial sanction regimes

Countries included on the financial sanctions' lists of the European Union or the US are excluded from the indices unless:

- Sanctions are applied to specific individuals only, or
- Funds, funding and financial transactions of the government and government-related entities are unaffected by the sanctions.

The information about the sanctions regime is compiled:

- For the European Union from the Common Foreign & Security Policy from [http://ec.europa.eu/external\\_relations/cfsp/sanctions/measures.htm](http://ec.europa.eu/external_relations/cfsp/sanctions/measures.htm)
- For the US from the Office of Asset Control (OFAC) from <http://www.treas.gov/offices/enforcement/ofac/>

A country is placed on the sanction list if relevant sanctions apply for either the European Union or the US. The decision about adding/removing countries is taken in consultation with the Technical Committee. Any decision to change the list of countries on the sanction list is immediately published on the web.

A country emerging from default is re-included in the index at the next index rebalancing after its rating has been reinstated. If financial sanctions are instated for a particular country, this country is removed from the index at the next month-end. If financial sanctions are lifted, the country is included in the index at the next index re-balancing after all relevant sanctions have been lifted.

Based on current information, the following countries are excluded from the indices because of applicable sanctions:

- Cuba
- Iran
- Myanmar
- North Korea
- Sudan
- Syria

### 3 Bond Classification

All bonds are classified based on the principal activities of the issuer and the main sources of the cash flows used to pay coupons and redemptions.

The issuer classification is reviewed regularly based on updated information received by Markit, and status changes are included in the indices at the next rebalancing if necessary.

Where the sector classification of a specific entity is not very clear due to the diversified business of the entity, decision will be made at Markit's discretion. Markit will assign the Markit classification according to its evaluation of the business risk presented in the security prospectus and annual reports, if available. Markit will also compare the classification to peers in the potential sectors, and Markit may consult with the Index Advisory Committees. Membership list including classification is published on the FTP server and in the indices section on [www.markit.com/indices](http://www.markit.com/indices) for registered users for future reference and to ensure decision's consistency.

#### 3.1 Overall Bond Classification Scheme

The following classification scheme is used for the bonds:

- Level 0      Index family, i.e. USD
- Level 1      Country of risk
- Level 2      External Debt
- Level 3      Sovereigns
- Level 4      Region (Asia, EEMEA, Latin America)

#### 3.2 Sovereigns

Bonds issued by a central government and denominated in USD.



## 4 Index Calculation

The index is market capitalization weighted.

### 4.1 Static Data

Information used in the index calculation is sourced from offering circulars and checked against standard data providers.

### 4.2 Bond Prices

For more details please refer to the “Markit iBoxx Pricing Rules” document, available on the Markit iBoxx Rules page of [www.markit.com](http://www.markit.com) (<http://www.markit.com/en/products/data/indices/bond-indices/iboxx/rules.page>) in the Methodology Documentation section on the right-hand side of the page.

### 4.3 Rebalancing Process

All Markit iBoxx USD indices are rebalanced monthly on the first business day of the month. Changes to amounts outstanding are only taken into account if they are publicly known three business days before the end of the month. Changes in ratings are only taken into account if they are publicly known three business days before the end of the month. Any changes after the index cut-off day (t-3) will not be considered in the re-balancing process, but will become effective at the end of the following month. New bonds issued are taken into account if they are publicly known to settle until the last calendar day of the month, inclusive, and if their rating and amount outstanding has become known at least three trading days before the end of the month.

Four business days before the end of each month a preliminary membership list is published on <http://indices.markit.com>. This list contains preliminary information on rating and uncapped amount outstanding of the bonds.

Three business days before the end of each month, a membership list ("Constituents Super List") with the full amount outstanding for each bond is published. This Constituents Super List contains the maximum number of constituents for the next month.

Two business days before the end of the month, the rating information for the bonds on the Constituents Super List is updated and the list is adjusted for all new rating changes that have occurred three business days prior to month-end. The weight of each country and the notional amount for each bond is calculated. The resulting list is the final membership list for the following month and is published as soon as all rating changes are confirmed.

On the last business day of each month, Markit publishes the final membership with closing prices for the bonds, and various bonds analytics based on the index prices of the bonds.

### 4.4 Index Data

A sub-index is calculated if at least one bond matches all inclusion criteria. If no more bonds qualify for an index, then its level remains constant. If at least one bond becomes available again, the index calculation resumes and is chained to the last calculated level.

All bonds are assigned to sub-indices according to their classification. The assignment of a bond to a certain maturity bucket is based on its expected remaining life. All bonds remain in their maturity bucket for the entire month.

The calculation of the indices is based on bid prices. New bonds are included in the indices at their respective ask prices when they enter the index family. In the event that no price can be established for a particular bond, the index continues to be calculated based on the last-available price. This might be the case in periods of market stress, or disruption as well as in illiquid or fragmented markets. If the required inputs become impossible to obtain, Markit may consult the specific Index Advisory Committees at the following rebalancing date. To ensure consistency, decisions taken are made publicly available on a timely basis and Markit has the ability to refer back to previous cases.

On the last trading day of a month, the rebalancing takes place after the daily index calculation for the current month's list, including the calculation of the last calendar day's indices, has been performed.

### 4.5 Index Calculus

For specific index formulae please refer to *Markit iBoxx Bond Calculus* document, available on the Markit iBoxx Rules page of [www.markit.com](http://www.markit.com) (<http://www.markit.com/en/products/data/indices/bond-indices/iboxx/rules.page>) in the Methodology Documentation section on the right-hand side of the page.

## 4.6 Treatment of special intra-month events

Data for the application of corporate actions in the indices may not be fully or timely available at all times, e.g. the final call prices for make-whole calls or the actual pay-in-kind percentage for PIK-payment options. In such cases, Markit will estimate the approximate value based on the available data at the time of calculation.

### 4.6.1 Index and Analytics Weightings

All iBoxx USD Indices are volume-weighted indices, with the bond's amount outstanding as the weighting factor. The amount outstanding of a bond is only adjusted at the monthly re-balancing process at the end of each month. However, scheduled redemption payments for amortising bonds and sinking funds are taken into account from the date they occur, as they have a significant influence on index return and analytical values. In addition, bonds that are fully redeemed intra-month are also taken into account immediately. Therefore, the indices are based on adjusted amount outstanding, derived from the amount issued and closely related to the amount outstanding of a bond. The concept is summarised below.

Definitions:

- *Amortising bonds*: Bonds whose face value is redeemed according to a schedule at more than one redemption date. Interest payments are made on the basis of the remaining value of the bond.
- *Sinking funds*: Bonds, for which money is applied periodically to redeem part of the outstanding before maturity. At the redemption dates the appropriate amount of bonds may either be retired randomly from the outstanding bonds, or purchased on the open market and thus retired. Interest payments are made on the remaining outstanding bonds.
- *Fully redeemed bonds*: Bonds that are completely repurchased prior to or at the calculation date.

The amount issued of a bond does not change when coupons are paid and bonds are redeemed. However, additional tranches and unscheduled repurchases have to be taken into account to arrive at a suitable basis for index and analytics calculations. Therefore the adjusted amount outstanding is the common basis on which all calculations are based.

In addition, incoming bond prices from price providers are linked to the amount outstanding, rather than to the amount issued. This ensures a common basis (to the nominal value of 100), on which all bonds are priced and the indices are calculated.

### 4.6.2 Funged Bonds

Bonds may be issued in several tranches. The different tranches are initially legally separate and therefore trade independently for a certain period. On and after the funged date, the tranches will be combined into one bond, i.e. the parent tranche will contain the original security, as well as the additional notional(s) from the new tranche(s). After the funged date, the prices for both the securities are the same, because they constitute one uniform bond. This is reflected in the indices as follows:

#### 4.6.2.1 Parent and new tranche are both index constituents

- After the funged date, the price from the parent tranche is used for the funged tranche; no price for the funged bond.
- Funged tranche leaves the index at the next rebalancing and parent amount outstanding increases accordingly.

#### 4.6.2.2 Parent is an index constituent, but the new tranche is not

- No special intra-month treatment necessary
- Parent amount outstanding increases at the next rebalancing

#### 4.6.2.3 Parent is not an index constituent but the new tranche is

- No special intra-month treatment necessary
- Funged tranche leaves the index; parent tranche enters the index at the next rebalancing

### 4.6.3 Unscheduled full redemption – buybacks

If a bond is fully redeemed intra-month, the bond effectively ceases to exist. In all calculations, the redeemed bond is treated as cash based on the last price or repurchase price, as applicable. The redemption factor  $F_{i,t}$ , Redemption  $R_{i,t}$  and the Redemption Price  $RP_{i,t}$  are used to treat these events in the index and analytics calculation. In addition, the clean price of the bond is set to the redemption price, and the interest accrued until the redemption date is treated as an irregular coupon payment.

#### 4.6.4 Bonds trading flat of accrued

If a bond is identified as trading flat of accrued, the accrued interest of the bonds is set to 0 in the total return index calculation and the bond is excluded from the calculation of all bond and index analytical values.

#### 4.6.5 Multi-coupon bonds

Some bonds have pre-defined coupon changes that lead to a change in the annual coupon over the life of the bond. In all instances, the coupon change must be a fixed amount on top of a fixed coupon, i.e. floating coupon bonds are not eligible for the indices. The two main categories of bonds are step-up bonds and event-driven bonds.

- Step-up bonds: These are bonds with a pre-defined coupon schedule that cannot change during the life of the bond. The coupon schedule is used in all bond calculations.
- Event-driven bonds: These are bonds whose coupon may change upon occurrence (or non-occurrence) of pre-specified events, such as rating changes, e.g. rating-driven bonds, failure to register a bond, e.g. register-driven bonds, or failure to complete a merger, e.g. merger-driven bonds. In the calculation of the indices and the analytics, the coupon schedule as of the calculation date is used. That is to say, any events occurring after the calculation date are ignored in the determination of the applicable coupon schedule.
- Example of an event-driven bond: A bond's rating changes on 31 December 2003 from A- to BBB+, and the coupon steps up from 6% to 6.25% from 01 March 2004 onwards. The coupon dates are 01 October and 01 April each year. The correct coupon schedule for the bond and index calculations is date dependent. The index calculation on 20 December 2003 uses the 6% coupon for the whole life of the bond, while the calculation on 31 January 2004 uses a 6% coupon for the current coupon period to 29 February 2004, and a 6.25% coupon for all later interest payments. The index calculation on 20 March uses a 6% coupon until 29 February, a 6.25 % coupon for the remainder of the current coupon period and a 6.25 % coupon for all future coupon payments. The index calculation after 01 April uses a 6.25% coupon.

#### 4.6.6 Ex-dividend conventions

Some markets have ex-dividend conventions. Ex-dividend means that the next coupon is detached from the bond several days in advance of the coupon payment date. The date on which the next coupon is detached is the ex-dividend date and the period between the ex-dividend date and the coupon payment date is the ex-dividend period. If a bond is in the ex-dividend period, the next coupon payment will not be paid to a buyer of this bond, but will be paid to the original bond holder.

The indices and analytics calculations take ex-dividend conventions into account. During the ex-dividend period, the accrued interest of the bond is negative, while the next coupon payment is held separate in the variable coupon adjustment CPI<sub>t</sub>. If the bond enters the index during the ex-dividend period, then the next coupon payment (and the coupon adjustment) will not accrue to the index, however, if the bond was already in the index, the next coupon payment needs to be included in the total return calculations. This is controlled via the ex-dividend indicator XDi<sub>t</sub>, which is 0 if the bond enters the index during the current ex-dividend period and 1 if not. The same treatment is also applied to all analytics calculation, i.e. the first cash flow is excluded from the calculations if the bond enters during the current ex-dividend period.

### 4.7 Index History

The index history starts on 31 October 2010. All indices have a base value of 100 on that date.

### 4.8 Settlement conventions

All Markit iBoxx indices are calculated using the assumption of t+0 settlement days.

### 4.9 Calendar

Markit publishes an index calculation calendar which is available in the indices section on [www.markit.com/indices](http://www.markit.com/indices) under Calendar for data subscribers. This calendar provides an overview of the index calculation times of the Markit iBoxx bond index families in a given year.

### 4.10 Data Publication and Access

The Index data is available on <http://indices.markit.com>, <ftp://indices.markit.com>, Bloomberg and Reuters. Below are the access codes for the different vendors and IDs of the Index:

**Table 1: Index Vendor Codes and IDs**

Name	Version	ISIN	Bloomberg Code	RIC
Markit iBoxx USD Emerging Markets Sovereigns	Total Return Index	GB00B4QS0V64	IBOXUSEM	.IBXXUSEM
Markit iBoxx USD Emerging Markets Sovereigns	Clean Price Index	GB00B4NQ2F14	IBOXUSET	.IBXXUSET

#### 4.11 Index Restatement

Index restatement follows the policy described in the *Index restatement policy* document, available on the Markit iBoxx Rules page of [www.markit.com](http://www.markit.com/en/products/data/indices/bondindices/iboxx/rules.page) (<http://www.markit.com/en/products/data/indices/bondindices/iboxx/rules.page>) in the Methodology Documentation section.

#### 4.12 Index Review

Index methodology reviews for the indices outlined within this guide are performed on a periodic basis. Any material changes to the methodology governing the indices are published on the Markit website.

## 5 Further Information

- Glossary of key terms is available in the *Glossary* document, available on the Markit iBoxx Rules page of [www.markit.com](http://www.markit.com) (<http://www.markit.com/en/products/data/indices/bond-indices/iboxx/rules.page>) in the Methodology Documentation section

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